

**Amendments to the Claims:**

1. (Currently Amended) A system for measuring package interconnect impedance, said system comprising: a tester; a tester head; a device under test (DUT)/load board which is configured to retain a substrate; ~~said DUT/load board being connected to the tester, said tester being connected to a Digital Sampling Oscilloscope (DSO) connected to both said tester and said tester head~~; a probe card mounted to said tester head and contactable with said substrate, said DSO configured to launch a signal to said tester head which is received by the substrate, said DSO configured to receive the launched signal and a reflected signal from the substrate tester head and provide the reflected signal signals to the tester, said tester configured to obtain a waveform from the DSO and store data in a file, and means configured to use the data to calculate interconnect impedance versus time data for the DUT, thereby monitoring impedance tolerance.
- 2-4. (Cancelled)
5. (Currently Amended) The system as recited in claim 2 claim 1, wherein the probe card has probe pins.
6. (Original) The system as recited in claim 5, wherein probe pins from the probe card make contact with bump pads on the substrate.

Serial No. 10/620,057  
Art Unit: 2829  
Page 2

7. (Original) The system as recited in claim 1, wherein said DUT/load board has a socket which is configured to hold said substrate.
8. (Currently Amended) The system as recited in ~~claim 2~~ claim 1, further comprising a coaxial cable which connects said DSO to said test head, wherein during testing, a signal is launched using the DSO into a coaxial cable which is connected to the test head.
9. (Original) The system as recited in claim 1, further comprising a GPIB cable which connects said DSO to said tester, wherein the launched signal and the reflected signal are captured back by the DSO, and then fed into the tester via GPIB connections.
10. (Original) The system as recited in claim 1, further comprising post processing software which is configured to obtain interconnect impedance versus time information.

11-14. (Cancelled)

15. (Currently Amended) A method for measuring package interconnect impedance, said method comprising: providing a tester; providing a tester head; providing a device under test (DUT)/load board which is configured to retain a substrate; ~~said DUT/load board being connected to the tester, said tester being connected to~~ providing a Digital Sampling Oscilloscope (DSO) connected to both said tester and said tester head; providing a probe

Serial No. 10/620,057  
Art Unit: 2829  
Page 3

card mounted to said tester head and contactable with said substrate; using said DSO to launch a signal to said tester head which is received by the substrate, wherein said DSO is configured to receive the launched signal and a reflected signal from the substrate tester head and provide the reflected signal signals to the tester; using the tester to obtain a waveform and store data in a file and using post processing software to analyze the data and provide interconnect impedance versus time data, thereby monitoring impedance tolerance.

16-18. (Cancelled)

19. (Currently Amended) The method as recited in ~~claim 16~~ claim 15, wherein the probe card has probe pins.
20. (Original) The method as recited in claim 19, wherein probe pins from the probe card make contact with bump pads on the substrate.
21. (Original) The method as recited in claim 15, wherein said DUT/load board has a socket which is configured to hold said substrate.
22. (Currently Amended) The method as recited in ~~claim 16~~ claim 15, wherein said DUT/load board has signal wires which are connected to the tester, said method further

Serial No. 10/620,057  
Art Unit: 2829  
Page 4

comprising providing a coaxial cable which connects said DSO to said test head, wherein during testing, a signal is launched using the DSO into a coaxial cable which is connected to the test head.

23. (Original) The method as recited in claim 15, further comprising providing a GPIB cable which connects said DSO to said tester, wherein the launched signal and the reflected signal are captured back by the DSO, and then fed into the tester via GPIB connections.

24-27. (Cancelled)

Serial No. 10/620,057  
Art Unit: 2829  
Page 5